

Remarks

Claims 25-30, 34-39, 41-46, and 52 are pending in the application. By this Amendment, Applicant has amended Claims 25, 34, and 52. Claims 1-24, 31-33, 40, and 47-51 are or have been cancelled. No new matter has been added.

I. Claim Rejections - 35 U.S.C. § 101

Claims 25-30, 34-46, and 52 stand rejected under 35 U.S.C. § 101 as allegedly being directed to nonfunctional descriptive material. In response to this rejection, Applicant has amended independent Claims 25, 34, and 52 to recite a computer readable medium having computer executable instructions for generating instances of a document.

According to the Examination Guidelines for Computer Related Inventions, Final Version, available at <http://www.uspto.gov/web/offices/pac/dapp/pdf/ciig.pdf>. (the “Guidelines”) “[F]unctional descriptive material” consists of data structures and computer programs. *Id.* at 8. “Non-functional descriptive material” includes music, literary works, and mere compilations of data. *Id.* The Examiner appears to admit that the Applicant has claimed a data structure, as opposed to music, a literary work, or a mere compilation of data. *See*, page 2 of the September 6, 2007, Office Action (the “Office Action”). Accordingly, Applicant submits that the claim is directed to, at a minimum, “functional descriptive material.” According to the Guidelines, “[w]hen functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases.” Guidelines at 8. This is how the Applicant has claimed its invention. To make the point clearer, the Applicant has modified its claims further to indicate that computer instructions are part of the claimed “computer readable medium.”

The Examiner admits in the Office Action that “[n]on-functional descriptive material may be claimed in combination with other functional descriptive . . . material on a computer readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. §101.” Office Action, p.3. Regarding the pending claims, Claim 25, for example, requires instructions for generating a document according to a template based on a schema. So there is an interrelationship between generating the document (a functional act) and

what the Office alleges to be descriptive material (the schema). Thus, the requirements of Section 101 and the Guidelines have been met.

For all the reasons noted above, the Office's rejections to the claims under Section 101 should be rescinded.

II. Claim Rejections - 35 U.S.C. § 102

Claims 25-30 and 34-46 stand rejected under 35 U.S.C. § 102(e) as being unpatentable in view of U.S. Patent No. 6,826,727 issued to Mohr et al. (hereinafter referred to as "Mohr"). As disclosed below in more detail, Mohr does not teach or suggest the subject matter of these claims.

1. Independent Claim 25

As Applicant noted in its prior response, Mohr does not teach or suggest "a data table element configured to contain data that is used to transform an abstract instance of a document template to a concrete instance of a document template" and "an instances element including at least one instance element," as recited in amended Claim 1.

In contrast, Mohr discloses a "computerized system [that] lays out document templates represented as a tree of text and shape elements, including variable elements." Abstract. Each shape element has a maximize or minimize property in one or more dimensions, and when content is mapped into a shape element, the layout makes shape elements with minimize properties as small as possible and makes shape elements with maximize properties as large as possible. Abstract. Therefore, the system disclosed in Mohr resizes document components according to the values of content mapped into the document.

As described in Mohr, each shape element can have a "flex-height-behavior attribute [that] can be set to one of five values: 'none' 256, 'maximize' 258, 'minimize' 260, 'proportional' 262, and 'source size' 263. ... If the flex-height behavior [attribute] is 'none' that means the shape has a fixed height If the user selects the 'maximize' flex-height behavior, the layout process will try to 'maximize' the height of the shape, that is, to have it take up all available space during the layout process, up to the height defined by the Flex Height Maximum attribute 244 shown in FIG. 10. If the user selects the 'minimize' value for the flex-height

behavior, the shape's height will attempt to be as small as possible as allowed by either the size of the shape's contents plus the shape's internal top and bottom margin attribute values 220 and 230 shown in FIG. 9, or the value of its Flex Height Minimum attribute 243 shown in FIG. 10, whichever is larger." Col. 18, lines 26-56.

Accordingly, Mohr teaches automatically sizing content (e.g., text or images) to a particular size (e.g., a fixed size, a maximum size, or a minimum size). Mohr does not teach or suggest providing an "instances [plural] element" that contains at least one "instance [singular] element."

As noted in the Specification of the present application,

the instances element 308 describes how each individual instance of the document is constructed. The instances element 308 includes a single instance element 340 at authoring time. The abstract instance is replicated into a plurality of instances at transaction time.

Para. 86 of the Specification. As also noted in the Specification,

[t]he data table element 306 includes, in some embodiments, all the data values to be used in a specific instance of a template 302. In one embodiment of the invention, the data table element 306 defines a structure of data values that can be accessed by name, or by a combination of name and one or more indices. The data in the data table element 306 drives the application of . . . rules to transform an abstract instance of the template 302 into one or more concrete instances and to assign data values to data targets.

Mohr does not include a structure or architecture that automatically determines the number of instances of a document template based on the data provided. Mohr is simply resizing content. Thus, Claim 25 is allowable. Claims 26-30, which depend from independent Claim 25, are also allowable for at least these reasons. Claim 26 is also believed allowable for the additional reasons discussed below.

Claim 26 further defines the "instance element." According to Claim 26, the "instance element is configurable to include an instance data table element, a pages element, an overlays element, and a continuations element." Mohr does not disclose using continuations to handle content that does not fit in a particular area or element. In fact, Mohr teaches away from handling continuations for overflows of data or content, since continuations never occur in the system disclosed in Mohr. The content or data is always sized to fit within the mapped shape element. Therefore, there are never any continuations or overflows to handle.

As noted in the present application,

[c]ontinuations elements tell a processor how to handle overflows. An overflow condition can be created when the data value to be assigned to a field target cannot be drawn in the available space according to the attributes governing that space. Overflow handling is defined as part of the contents of an instance element 340. An instance element 340 can have any number of pages, but the overflow handling is independent of those pages. When data for a text target requires more space than is available, a continuation event occurs. Continuation handling falls into three categories. The first of these is a no continuation handling condition, where fields are handled on their original page. Under a no conditional handling condition[,] attributes may specify font reduction that may be applied. The second type of continuation handling is structured handling, where handling of rich data structures such as tables or parties in a tabular format is required on the continuation page. A third type of continuation handling is unstructured handling, where simple data items such as a property description are handled. In an unstructured handling condition several such fields may be continued to the same continuation page and arranged in order along with a caption for each value, a potential forwarding message, and other attributes.

Para. 88 of the Specification.

Consequently, continuation elements provide instructions on how to handle data or content that does not fit within its specified structure or data target. Since Mohr discloses always fitting content within its specified structure, Mohr does not teach or suggest an “instance element [that] is configurable to include an instance data table element, a pages element, an overlays element, and a continuations element,” as recited in amended Claim 26.

2. Independent Claims 34 and 52.

Claim 34 includes some limitations that are similar to those in Claims 25 and 26. As such, Claim 34 is allowable for similar reasons Claims 25 and 26 are allowable. The claims that depend on Claim 34 are allowable for at least the same reasons.

Regarding Claim 52, it is similar to Claim 25 and is allowable for similar reasons.

III. Response to Examiner’s Arguments

The Examiner stated that Applicant’s prior amendments were not sufficient to overcome the Section 101 rejections because the claims do not cause a functional change in the computer. Applicant notes it is claiming a product, namely a “computer readable medium.” Such products are statutory for all the reasons noted in Section I above.

The portions of Mohr cited by the Office indicate, in simple terms, that the system disclosed by Mohr uses “content-mapping rules” and that “template elements” that are “variable elements” have a “variable value” mapped into them “when the template is used to produce a set of one or more variable data documents.” Mohr, Col. 11, line 67 to Col. 12, line 2. Thus, in Mohr the data changes or is variable. This is not what the Applicant has claimed. In Mohr, a variable element might be something like “name.” Thus, the set of “one or more variable data documents” referenced in Mohr might be a first document with the name “Derek Stettner” and a second document with the name “Amelia Rutledge,” but, other than those fields or “template elements” into which data is mapped, the first and second documents are essentially the same because the document template does not change.

The claimed subject matter relates to how to create the document template and how to create concrete instances of an abstract document template (as opposed to a concrete instance of a document by filling in fields with values as disclosed in Mohr). These differences are better illustrated, for example, in the discussion of Claim 25 below.

The first paragraph of the body of Claim 25 requires “computer executable instructions for generating instances of a document based on a template structured according to a schema.” What Mohr discloses, for example, in Col. 10, line 43 through Col. 11, line 19, is how to create what Mohr calls a template file using XML. For example, Mohr indicates that “FIG. 4 is a portion of the XML text of the template file 130 corresponding to the template shown in the designer window [154] of FIG. 3.” Mohr, Col. 10, lines 52-54. The template file 130 includes “template elements hav[ing] corresponding entries in a variable column 177 shown at the right hand side of the structure view. Each such entry is a variable name that occurs between left and right arrow characters, ‘<’ and ‘>’, respectively.” Mohr, Col. 11, lines 60-64. As noted above, actual values are mapped to these variables.

The Office correlates the template files 130 of Mohr, which are written in XML, to the claimed “template structured according to a schema,” and, solely for the purposes of this argument, Applicant will assume that this is a proper correlation. However, even if one assumes that Mohr discloses this element of Claim 25, there are still other elements in the claim that are not disclosed by Mohr.

For example, Claim 25 requires a “schema comprising:

a template root element;
a template information element;
a data table element configured to contain data that is used to transform an abstract instance of a document template to a concrete instance of a document template and to determine the number of instances of a document template; and
an instances element containing at least one instance element, the instances element describing how an individual instance of the document is constructed.”

An analysis of the XML code in Fig. 4 in Mohr reveals that there are no elements that explicitly correspond to these limitations in Claim 25. In addition, such an analysis reveals that the XML code that is illustrated in Mohr deals with content positioning and content sizing issues (which were discussed above). There is also nothing in this XML code that, for example, determines “the number of instances of a document template.”

Finally, Claim 25 requires a data element configured to contain data used for transforming an abstract instance of a documents template, which is distinct from a document, to a concrete instance of a document template, which is also distinct from a document. As noted above, the data mapping of Mohr simply creates multiple instance of a single document.

Regarding Claim 26, the claim recites a “continuations element.” Regarding the comments that the specific interpretation of the “continuations element” does not appear in the claim, the Applicant notes that while limitations from the specification can not be imported into the claims, the claims are interpreted in light of the specification *and not in a vacuum*. Any interpretation of the prior art and the claims proposed by the Office must be reasonable and consistent with the interpretation that those skilled in the art would reach. *See, e.g.* MPEP § 2111. The interpretation of the claims and the prior art proposed by the Office is unreasonably broad because it fails to give an appropriate meaning to the term “continuations element.”

IV. Conclusion

In light of the above, Applicant believes that the application is in condition for allowance and respectfully requests that a timely Notice of Allowance be issued in this case. Applicant also requests that the Examiner telephone the attorneys of record in the event a telephone discussion would be helpful in advancing the prosecution of the present application.

Respectfully submitted,



Derek C. Stettner
Reg. No. 37,945

File No. 014586-9015-00
Michael Best & Friedrich LLP
Two Prudential Plaza
180 North Stetson Avenue, Suite 2000
Chicago, Illinois 60601
312.222.0800